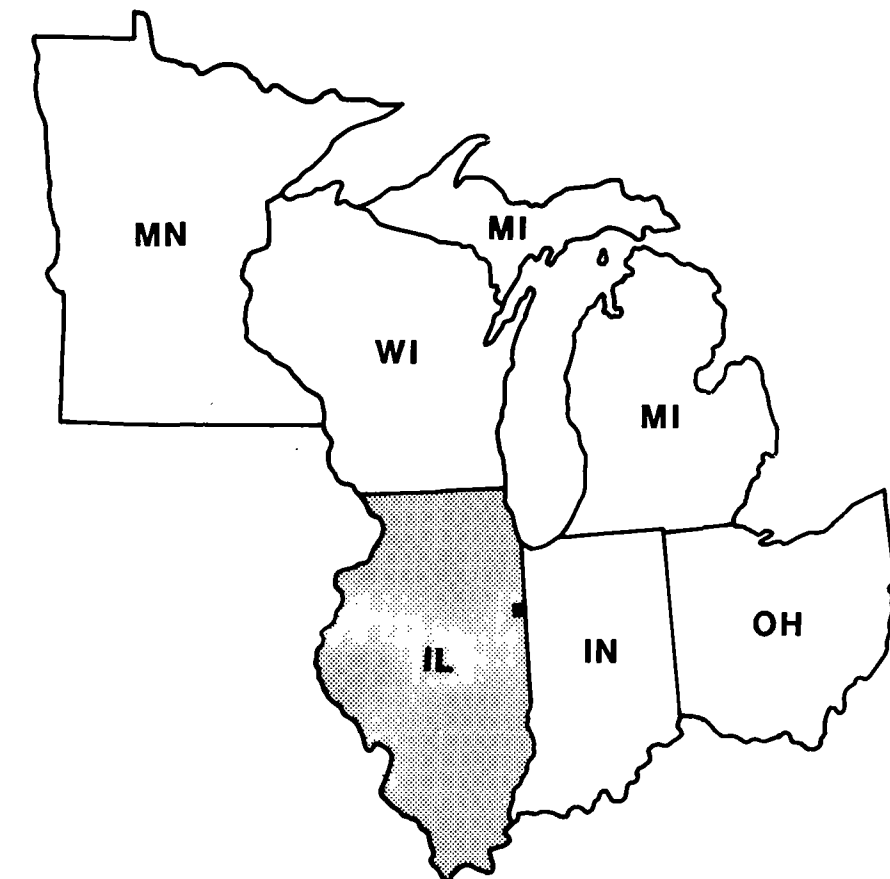


Research and Development



# AERIAL PHOTOGRAPHIC ANALYSIS OF THE ALLIED CHEMICAL CORPORATION Danville, Illinois

EPA Region 5



EPA Region 5 Records Ctr.



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TS-AMD-86615-2  
June 1987

AERIAL PHOTOGRAPHIC ANALYSIS OF THE ALLIED CHEMICAL CORPORATION  
Danville, Illinois

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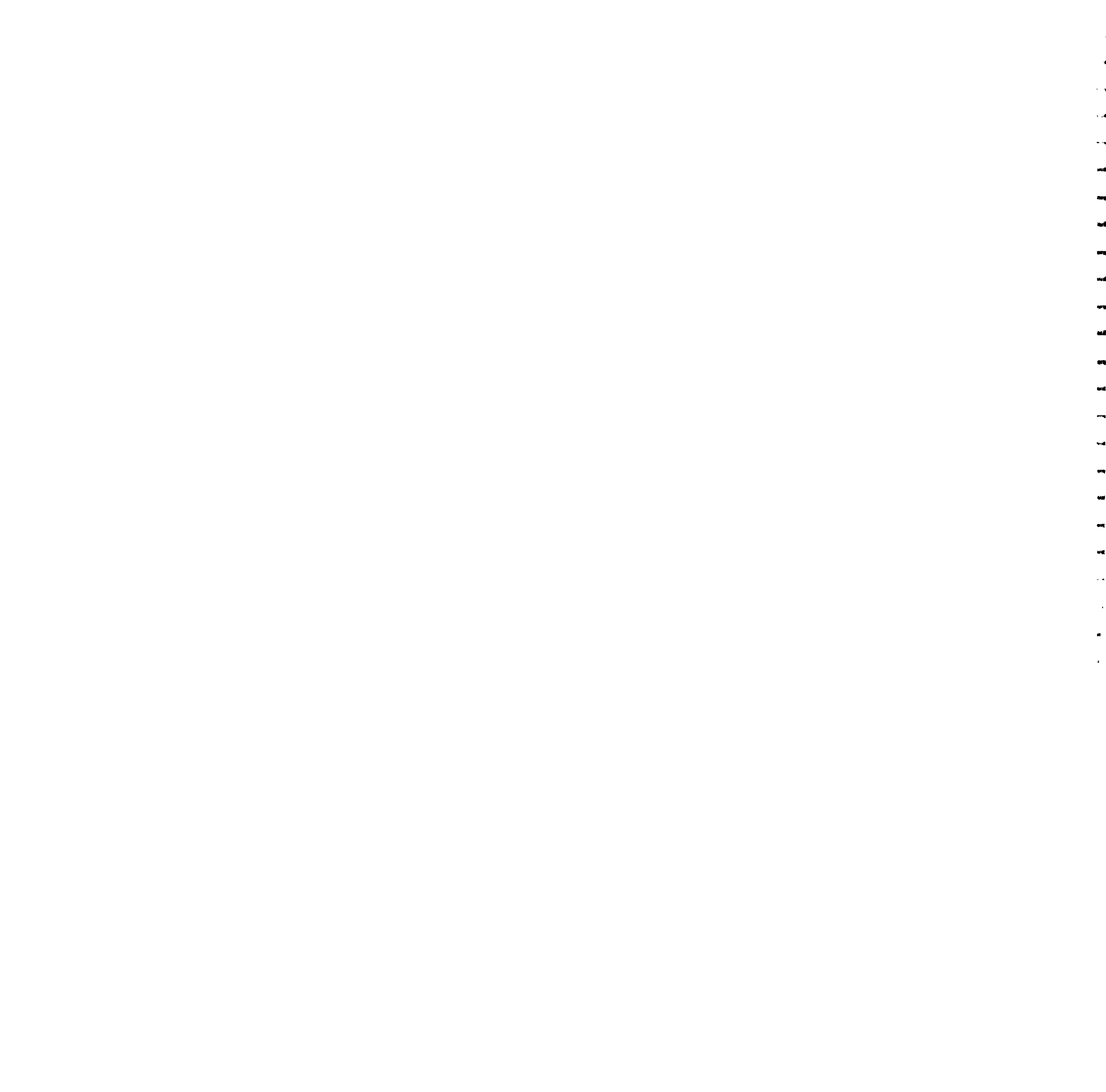
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## ABSTRACT

This report presents a current analysis of the Allied Chemical Corporation, Danville, Illinois. Current aerial photography dated May 31, 1986 was used to perform the analysis. This analysis was performed to monitor physical conditions and activities that could lead to the contamination of the surrounding environment, specifically surface and/or ground water.

This chemical plant contains three closed waste ponds, one effluent sump, numerous chemical storage/processing tanks, uncontained drum storage, and chemical loading racks. All of the drainage appears to lead into an unnamed creek that flows into Lick Creek.

The U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, prepared this report for the Agency's Environmental Services Division in Region 5 at Chicago, Illinois and the Office of Solid Waste in Washington, D.C.



## CONTENTS

	<u>Page</u>
Abstract . . . . .	iii
Introduction . . . . .	1
Methodology . . . . .	3
Analysis Summary . . . . .	7
Photo Analysis . . . . .	8

## FIGURES

### Number

1 Site location map, Illinois . . . . .	vi
2 Local site location map, Danville, Illinois . . . . .	6
3,4 Allied Chemical Corporation, May 31, 1986 . . . . .	9

## TABLES

1 Region 5 Sites Covered Under TS-AMD-86615 . . . . .	1
2 Documentation of Aerial Photography . . . . .	5



UNITED STATES  
(1972)

Figure 1. Site location map, Illinois. Approximate scale 1:2,800,000.

## INTRODUCTION

This report presents a current analysis of the Allied Chemical Corporation, which is located in eastern Danville, Illinois (Figure 1). Current aerial photography dated May 31, 1986 was used to perform this analysis. This report was prepared to document the physical conditions and potential hazards at the site. Table 1 lists all sites being covered under this project.

TABLE 1. REGION 5 SITES COVERED UNDER TS-AMD-86615†

Report serial number†	Site name	Location	Analysis type
1	Olin Corporation	East Alton, IL	Single-date
2‡	Allied Chemical Corporation	Danville, IL	Single-date
3	Van Tran Electric	Vandalia, IL	Single-date
4	Warner Electric Brake and Clutch Co.	Roscoe, IL	Single-date
5	Rockford Products Corporation, Plant #3	Rockford, IL	Single-date
6	Jones and Laughlin Steel	Hennepin, IL	Single-date
7	Chrysler Corporation	Belvidere, IL	Single-date
8	Keystone Group Bartonville Plant	Peoria, IL	Single-date
9	Ilada Energy Corporation	Sugarloaf Heights, IL	Single-date
10	Omega Hills	Menomenee Falls, WI	Single-date

†To identify individual reports, add the report serial number to series number. For Example: TS-AMD-6615-1.

‡Included in this report.

The U.S. Environmental Protection Agency's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada, prepared this report for the Agency's Environmental Services Division in Region 5 at Chicago, Illinois and the Office of Solid Waste in Washington, D.C.



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## METHODOLOGY

Stereoscopic pairs of historical and current aerial photographs are used to perform the analysis. Stereo viewing enhances the interpretation because it allows the analyst to observe the vertical as well as horizontal spatial relationships of natural and cultural features. Stereoscopy is also an aid in distinguishing between various shapes, tones, textures, and colors that can be found within the study area.

Evidence of waste burial is a prime consideration when conducting a hazardous waste analysis. Leachate or seepage resulting from burial and dumping of hazardous materials might threaten existing surface or ground-water sources. Pools of unexplained liquid are routinely noted because they can indicate seepage from buried wastes that may enter drainage channels and allow contaminants to move off the site. An excellent indicator of how well hazardous materials are being handled at a site is the presence or absence of spills, spill stains, and vegetation damage. Trees and other forms of vegetation that exhibit a marked color difference from surrounding members of the same species are labeled "dead," "stressed," or "damaged" based upon the degree of noticeable variation. Vegetation is so labeled only after consideration of the season in which the photographs were acquired.

The U.S. Environmental Protection Agency's Statement of Procedures on Floodplain Management and Wetlands Protection (Executive Orders 11988 and 11990, respectively) requires EPA to determine if removal or remedial actions at hazardous waste sites will affect wetlands or floodplains and to avoid or minimize adverse impacts on those areas. To aid in compliance with these orders, significant wetland areas located within and adjacent to the sites have been identified and delineated. However, the sites have not been visited to verify the accuracy of wetland identification.

Drainage analysis determines the direction a spill or surface runoff would follow. Direction of drainage is determined from analysis of the photographs and from U.S. Geological Survey topographic maps. Whenever they are available, 7.5-minute quadrangle maps (scale 1:24,000) are used to show site location and to provide geographic and topographic information.



Results of the analysis are shown on annotated overlays attached to the photos. The prints in this report have been enlarged when appropriate to show maximum detail. The following table provides documentation of the photographs used in this report.

TABLE 2. DOCUMENTATION OF AERIAL PHOTOGRAPHY

Site name, location, and geographic coordinates	Figures	Date of acquisition	Original scale	Film type†	Photo source‡
Allied Chemical Corporation	3	May 31, 1986	1:6,000	CC	EMSL
Danville, IL	4	May 31, 1986	Oblique	CC	EMSL
(40°07.7'N 087°33.0'W)					

†Film type identification:

CC: Conventional color

‡Photo source identification:

EMSL: U.S. Environmental Protection Agency, Environmental Monitoring Systems  
Laboratory, Las Vegas, Nevada.

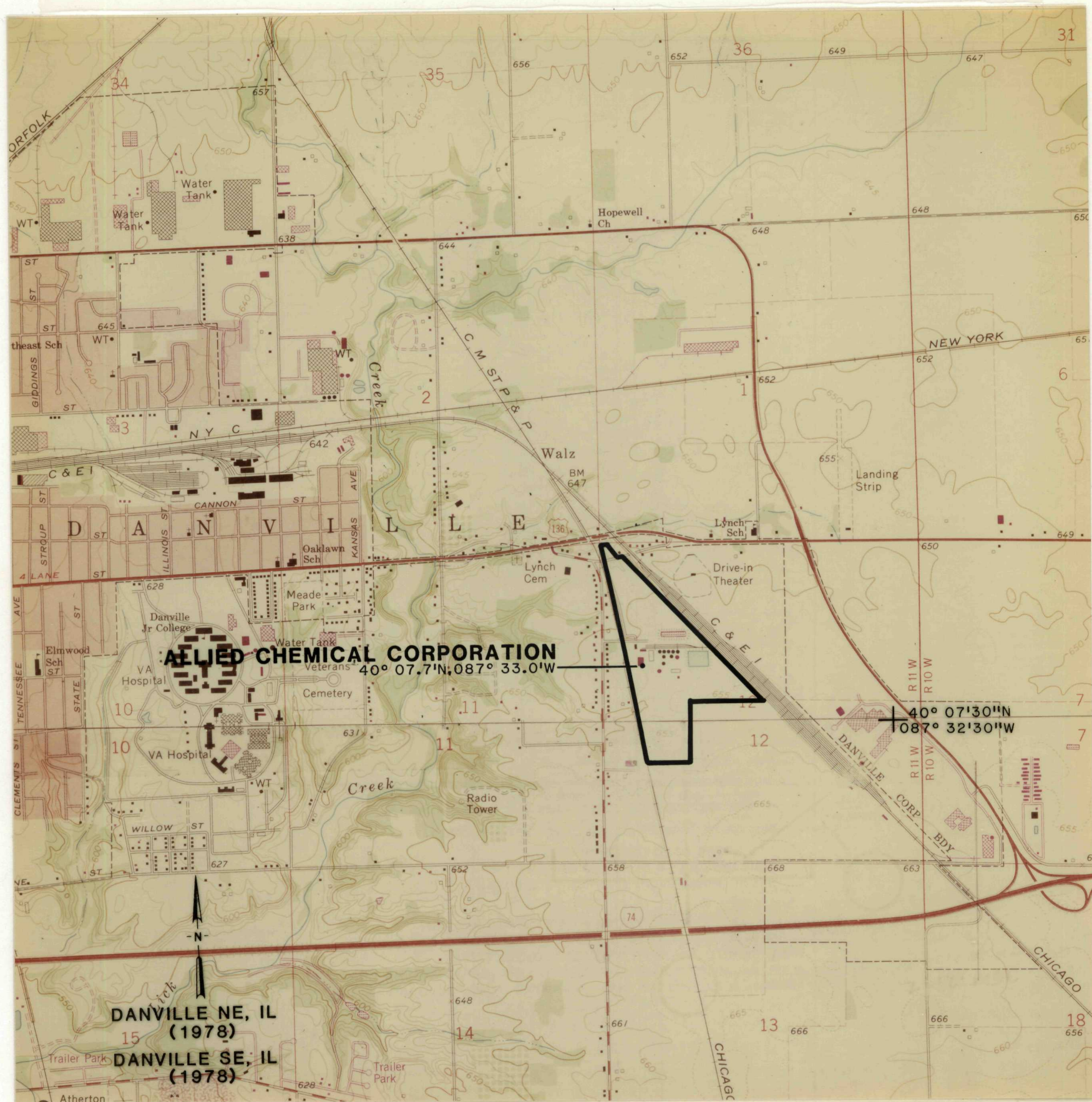


Figure 2. Site location map, Danville, Illinois. Scale 1:24,000.



## ANALYSIS SUMMARY

The Allied Chemical Corporation is a chemical manufacturing plant which occupies approximately 90 acres in eastern Danville, Illinois (Figure 2). This chemical plant contains three closed waste ponds, one effluent sump, numerous chemical storage/processing tanks, uncontained drum storage, and chemical loading racks. All of the drainage appears to lead into an unnamed creek that flows into Lick Creek.

The site is located adjacent to an agricultural area in eastern Danville, and is approximately 70 feet above Lick Creek, therefore the site would not be affected by a 100-year flood event.

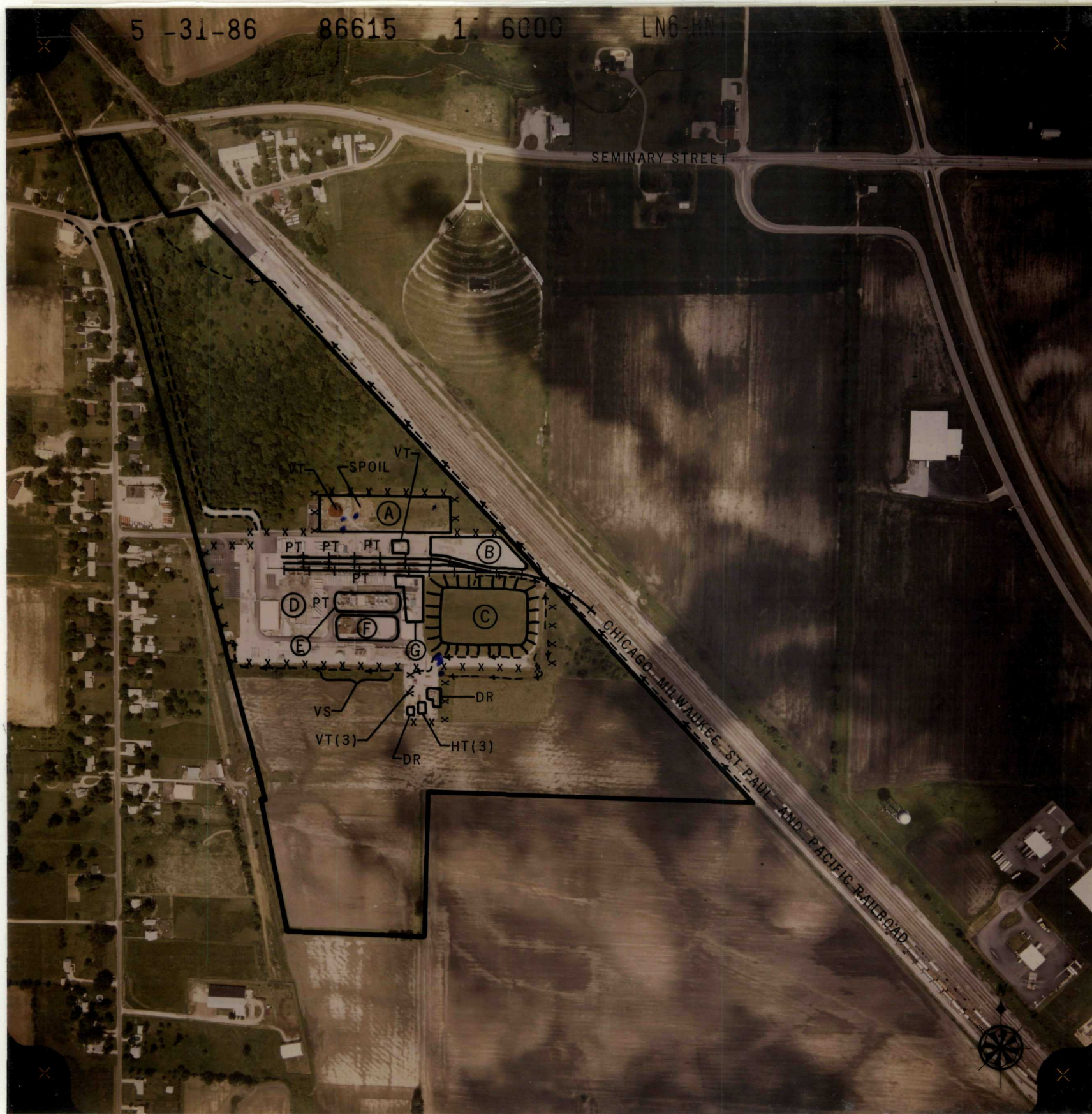
## PHOTO ANALYSIS

The Allied Chemical Corporation is a chemical manufacturing plant located in eastern Danville, Illinois (Figure 3). The most significant features identified on the photos include:

<u>Annotation</u>	<u>Description</u>
A - Waste pond (closed)	This revegetated waste pond contains a rusty vertical storage tank, and spoil.
B - Waste pond (closed)	This pond appears to have been recently covered and leveled.
C - Waste pond (closed)	This pond has been filled, covered, and revegetated.
D - Shipping/receiving	Crates, drums, and pressure tanks are present.
E - Storage/processing area	This area contains 13 storage/processing tanks and two possible processing units.
F - Probable laboratory	Single-story building.
G - Waste disposal area	This area contains one small effluent sump and four probable waste storage tanks.

An open storage area in the southern portion of the plant contains three horizontal tanks, four vertical tanks, and numerous drums. No secondary containment is visible. Surface runoff would enter one of the site's drainage ditches. Signs of oil, possible chemicals, and vegetation stress are visible inside these drainage ditches. These ditches lead into an unnamed creek that empties into Lick Creek.





## INTERPRETATION CODE

### BOUNDARIES AND LIMITS

- X-X-X-X FENCED SITE BOUNDARY
- UNFENCED SITE BOUNDARY
- X X X X X X FENCE
- STUDY AREA

### DRAINAGE

- DRAINAGE
- FLOW DIRECTION
- INDETERMINATE DRAINAGE

### TRANSPORTATION/UTILITY

- ===== VEHICLE ACCESS
- ++++ RAILWAY

### SITE FEATURES

- ||||| DIKE
- SL STANDING LIQUID
- SL STANDING LIQUID
- EXCAVATION, PIT (EXTENSIVE)
- MOUNDED MATERIAL (EXTENSIVE)
- MM MOUNDED MATERIAL (SMALL)
- CR CRATES/BOXES
- DR DRUMS
- HT HORIZONTAL TANK
- PT PRESSURE TANK
- VT VERTICAL TANK
- CA CLEARED AREA
- DG DISTURBED GROUND
- FL FILL
- IM IMPOUNDMENT
- LG LAGOON
- OF OUTFALL
- SD SLUDGE
- ST STAIN
- SW SOLID WASTE
- TR TRENCH
- VS VEGETATION STRESS
- WD WASTE DISPOSAL AREA
- WL WETLAND

Figure 3. Allied Chemical Corporation, May 31, 1986. Approximate scale 1:6,000.



Figure 4 shows an oblique view of the Allied Chemical Corporation and its environs.



## INTERPRETATION CODE

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- x-x-x-x FENCED SITE BOUNDARY
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- WL WETLAND

Figure 4. Allied Chemical Corporation, May 31, 1986. Oblique looking north.



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Was there sufficient information? ☐ Yes ☐ Too Much ☐ Too Little

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Cost (if appropriate): ☐ Under Estimate ☐ Meets Estimate

☐ Over Estimate

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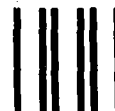
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